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Therefore, claims 1 through 6, 10 and 11 remain in the application.

The acknowledgement of applicant's claim for priority under the provisions of 35 U.S.C. 119 and receipt of the certified copy of the priority document is appreciated.

Applicant encloses herewith newly drafted formal drawings in which labels have been added to the boxes set out in the previous Official Action. It is submitted that these proposed formal drawings meet all objections to the drawings set out in the Official Action and notice to that effect is respectfully requested. The indication that correction of the drawing defect can be deferred until the application is allowed by the examiner is appreciated, although an indication that the proposed formal drawings indeed meet the requirements of the Chief Draftsman would be appreciated.

Claim 1 stands rejected under the provisions of 35 U.S.C. 102(b) as being clearly anticipated by Arnett (U.S. Patent 3,591,968 cited as Reference A in the attachment to Paper No. 9).

"Anticipation requires the presence of a single prior art reference disclosure of each and every element of the claimed invention arranged as in the claim." Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick, 221 USPQ 481, 485 (Fed. Cir. 1984). Claim 1, as amended, requires the plurality of "metering valve means" for regulating fuel flow from a source to respective ones of a plurality of burner manifolds. Claim 1 also requires a "means...for

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In reference Arnett, it should be noted that the fuel meter 40 provides fuel metering to the quick fill and distribution system 38. Therefore, with respect to claim 1, there is but a single fuel metering valve 41. Valves 166, 168, 170 and 172 are not fuel metering valves but rather have two steady state operating positions, i.e. a first priming position which depends upon the size of fixed flow restrictors 222, etc. and a second position which is the re-heat flow position which is set by the stop 194 (unnumbered with respect to the other valves).

If the fuel meter 40 in Arnett is closed, there would not appear to be any fuel supplied to the quick fill and distribution system 38 except through the unmetered flow 43 and servo-fuel flow 46 (as seen in Figure 1 of Arnett). It can clearly be seen that the fuel supplied as unmetered flow and servo-fuel is completely unregulated in terms of pressure and is subject to the pressure provided by pump 32 which pressure in turn will vary substantially with fuel demand (the higher the demand, the lower the pressure).

supply
boiling of

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the fuel. Arnett's use of unregulated fuel to prime the manifolds will result in boiling of the fuel unless by happenstance the fuel priming pressure is high enough to prevent boiling. There is no disclosure that Arnett recognizes this problem or has any means for solving the problem.

Therefore, because Arnett clearly fails to disclose at least one claimed element from claim 1 and certainly fails to disclose the operating interrelationship of the claimed elements, it cannot anticipate claim 1.

Additionally, Arnett clearly does not teach a regulating pressure supplied to the manifolds sufficient to prevent boiling and, therefore, does not suggest or render obvious applicant's claimed solution. Therefore, Arnett by itself clearly fails to teach or render obvious the subject matter of claim 1 and any anticipated future rejection under 35 U.S.C. 103 is respectfully traversed.

Claim 4 stands rejected under the provisions of 35 U.S.C. 103 as unpatentable over Arnett in view of Robson (U.S. Patent 2,520,434 cited as Reference B in the attachment to Paper No. 9). The above comments and distinctions between claim 1 and the Arnett reference are herein incorporated by reference to the extent that the rejection of claim 4 incorporates the Arnett reference since it is noted that claim 4 depends from claim 1. Claim 4 adds the requirement of relief valves in the respective burner manifolds where the relief valves are arranged to lift at pressures greater than the reference pressure.

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Robson teaches relief valves (described as dump valves 12a and 52a) which open only "under the pressure of fuel from the valve 13" (column 7, lines 4 and 5). It should be understood that metering valve 13 is upstream of the alleged of the valve which the Patent Office considers the "relief valve." If the metering valve supplies fuel at the reference pressure in order for such fuel to be supplied to the engine under re-heat conditions, the pressure from the re-heat fuel valve must be great enough to open "relief" valve 12a and 52. In reality, these valves are valves which prevent operation of the re-heat or afterburner system until the pressure provided by the metering valve is at or above a certain level. It should be understood that the "relief" valves in Robson are not relief valves with respect to the burner manifold 12 as suggested. Rather, they insure that only fuel at a predetermined pressure is supplied to the burner manifold. They do not relieve pressure in the burner manifold!

Furthermore, claim 4 specifically requires the relief valves arranged to lift at pressures greater than "said reference pressure." The term "reference pressure" is set out in claim 1 and is a result of the "means, operable when one of said metering valve means is shut, for introducing fuel at a predetermined reference pressure into the manifold associated with said one valve means." In other words, the relief valve operates to lift at pressures greater than the reference pressure when the metering valve itself is closed. As can be seen, Robson provides no structure for providing

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fuel at any pressure to the manifold when the metering valve 13 is closed. Until the Robson metering valve is opened and provides a designated pressure in line 51, the "relief" valve will not open and fuel will not be supplied to the re-heat burner 12.

Therefore, whether or not Robson could be combined with Arnett is irrelevant because neither teach or suggest a relief valve for providing relief greater than a reference pressure where the reference pressure is provided by the introduction of fuel when the metering valve is shut. As noted above, the whole point of applicant's invention is to provide fuel to the re-heat manifolds under pressure so that such fuel does not boil. This readily available fuel in the re-heat manifold permits much quicker engine response when the re-heat position is selected.

Inasmuch as neither Robson nor Arnett disclose the structures set out in claim 4 or their interrelationship with the structures of claim 1, there is no basis for a rejection under the provisions of 35 U.S.C. 103. Furthermore, it is submitted that both Arnett and Robson teach conventional fuel control systems and are not directed towards solving the problem of fuel boiling in the re-heat manifold to which the present invention is directed. There is no suggestion for combining Robson and Arnett and indeed both references teach away from any such combination. Therefore, any further rejection of claims 1 or 4 under the Arnett and/or Robson references is respectfully traversed.

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The indicated allowability of claims 2, 3, 5 and 6 is very much appreciated and applicant's offers newly written claim 10 which is similar to the combination of claims 1 and 2. Applicant also offers newly written claim 11, dependent from claim 10, which is similar to the subject matter of claim 4. Therefore, it would appear that newly written claims 10 and 11 should be allowable as submitted. Applicant is of the opinion that claims 1 and 4 are also allowable over the references cited and that there is no need to rewrite dependent claims 2, 3, 5 and 6.

Having responded to all objections and rejections set forth in the outstanding Official Action, it is submitted that amended claims 1 through 6 and newly written claims 10 and 11 are in condition for allowance and notice to that effect is respectfully solicited. In the event the examiner is of the opinion that a brief telephone or personal interview will facilitate allowance of one or more of the above claims, he is respectfully requested to contact applicant's undersigned representative.

Respectfully submitted,


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